

THE UNITED STATES OF AVIERIOA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Pioneer Hi-Bred International, Inc.

Thereis, there has been presented to the

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS ROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT,

VOITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR CONDITIONING IT GRANT OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 MENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'91M51'

In Testimonn Therest, I have hereunto set my hand and caused the seal of the Hunt Anxiety Protection Office to be affixed at the City of Washington, D.C. this twenty-seventh day of August, in the year two thousand and four.

100

Commissioner Plant Variety Protection Office Agricultural Marketing Service

of Agriculture

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE (Instructions and information collection burden statement on reverse)

ST-470 (04-01) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470 (02-99) which is obsolete.

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME 3. VARIETY NAME 1. NAME OF OWNER Pioneer Hi-Bred International, Inc. 91M51 ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) 7300 N. W. 62rd Avenue P.O. Box 1004 FOR OFFICIAL USE ONLY TELEPHONE (include area code) Johnston, IA 50131 FAX (include area code. 515-253-2478 FILING DATE 1/27/04 8. IF INCORPORATED, GIVE STATE OF INCORPORATION IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) 9. DATE OF INCORPORATION May 6, 1926 Corporate lowa FILING AND EXAMINATION FEES: NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) Daria Schmidt, Ph. D. 7300 N.W. 62^{rld} Avenue P.O. Box 1004 Johnston ,IA 50131-1004 Steve Calitistein, Esq 7100 N.W 62nd Avenue P.O Box 1000 Johnston, IA 50131-1000 s 3652 CERTIFICATION FEE CROP KIND (Common Name) TELEPHONE (Include area code) FAX (Include area code) 13. E-MAIL 14. Soybean 515-254-2638 515-253-2478 daria.schmidt@pioneer.com 18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on 19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act) reverse) YES (If "yes", answer items 20 and 21 below) X NO (If "no," go to item 22) X Exhibit A. Origin and Breeding History of the Variety X Exhibit B. Statement of Distinctness □ NO 20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? X Exhibit C. Objective Description of Variety IF YES, WHICH CLASSES? FOUNDATION REGISTERED CERTIFIED X Exhibit D. Additional Description of the Variety (Optional) X Exhibit E. Statement of the Basis of the Owner's Ownership 21. DOES THE OWNER SPECIFY THAT THE CLASSES BE X Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, LIMITED AS TO NUMBER OF GENERATIONS? YES NΩ verification that tissue culture will be depositied and maintained in an approved public repository) IF YES, SPECIFY THE X Filing and Examination Fee (\$2,705), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office) REGISTERED CERTIFIED FOUNDATION NUMBER 1, 2, 3, etc. (If additional explanation is necessary, please use the space indicated on the reverse. 22, HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED 23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U.S. OR PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? OTHER COUNTRIES? □ x NO IF YES, GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.) IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.) 24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties. SIGNATURE OF OWNER SIGNATURE OF OWNER NAME (Please print or type. NAME (Please print or type) Daria H. Schmidt DATE CAPACITY OR TITLE CAPACITY OR TITLE Director, Technology Integration and Associative Genetics

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$2,705 (\$320 filing fee and \$2,385 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$320 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office Telephone: (301) 504-5518 FAX: (301) 504-5291 2004 00 085

Homepage: http://www.ams.usda.gov/science/pvpo/pvp.htm

ITEM

18a. Give:

- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
- (2) the details of subsequent stages of selection and multiplication;
- (3) evidence of uniformity and stability; and
- (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
 - (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 19. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
- 21. See Section 83 of the Act for the Contents and Term of Plant Variety Protection.
- 22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 23. See Section 5.5 of the Act for instructions on claiming the benefit of an earlier filing date.
- 21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)
- 22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)
- 23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)
- U.S. Patent 4,940,835 issued to Shah et al. as per the Roundup Ready Gene in this variety

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filling a change of address. The fee for filling a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the variety names proposed by contacting: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center--East, Beltsville, MD 20705. Telephone: (301) 504-8089.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at 202-720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

ST-470 (04-01) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces ST-470 (02-99) which is obsolete.

Exhibit A. Origin and Breeding History of the Variety

Soybean Variety 91M51

Variety 91M51 evolved from a cross made in the winter of 1995 in Chile with the following parentage:

Parentage: 9071/12465

12465 = 9132/90733

90733 = 9172/90676

90676 = ST2250/G40-3P9392*

*G40-3P9392 is an experimental line with the Roundup Ready (40-3-2) gene

Variety 91M51 is an F4-derived line which was advanced to the F4 generation by modified single-seed descent. The F4 progeny row of 91M51 was grown in a plant row yield trial in the summer of 1998. Subsequently, 91M51 has undergone five years of extensive testing and purification and has been observed by the breeder to be uniform and stable for all plant traits from generation to generation, with no evidence of variants. On the basis of yield, Phytophthora resistance, and resistance to Roundup labeled herbicides, variety 91M51 was assigned a commercial number.

The purification block was grown during the summer of 2001 in Minnesota and 60 sublines were harvested. An approximately 3 acre increase was grown in Chile in the winter of 2001/2002. One hundred sixty-one (161) acres of parent seedstock (foundation seed equivalent) were grown in 2002 and 2100 acres of seedstock and production seed were grown in the summer of 2003.

Exhibit B. Statement of Distinctness

Soybean Variety 91M51

Variety 91M51 is most similar to variety 91B52. Both varieties have purple flowers, gray pubescence, resistances to *Phytophthora megasperma* as governed by the Rps1k gene and resistance to Roundup branded herbicides. However, 91M51 has buff hilia whereas 91B52 has imperfect black hila.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data ources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326CJW, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY PLANT VARIETY PROTECTION OFFICE BELTSVILLE, MD 20705 EXHIBIT C (Soybean)

OBJECTIVE DESCRIPTION OF VARIETY
SOVREAN (Glucing may (L.) Merr.)

	SC	OYBEAN (Glycin	ie max (L.) Merr.)		
NAME OF APPLICANT(S)					FOR OFFICIAL USE	ONLY
Pioneer Hi-Bred, International				~	PYPO NUMBER	A A P
ADDRESS (Street and No. or R.F.D. No., City, State, an	d Zip Cod	•	•	20	04 00	085
7200 62nd Avenue	-			}	VARIETY NAME	· · · · · · · · · · · · · · · · · · ·
P.O Box 1004 Johnston, IA 50131-1004					91M51	
				_		······································
					TEMPORARY OR E DESIGNATION	XPERIMENTAL,
						.
PLEASE READ ALL INSTRUCTIONS C	AREFULLY: Place t	he appropriate num	ber that describes the	varietal charac	ter of this variety	y in the boxes below.
Place a zero in the first box (e.g. 9	9 9 or	0 9)	when number is eith	er 99 or less or !	9 or less respecti	vely. Data for
quantitative	9 9 or					
			111 14 1.15			. And all Manual
plant characters chould be based on a mini					tered in the sam	е тгіаі. Коуаі
Horticulutral Society or any recognized co	or standard may be	used to determine pl	ant colors; designate	system used:		
Please answer all questions for your variet	y; lack of response m	ay delay progress of	your application.			
A. MORPHOLOGY				. •	•	
Seed Shape						
1 = Spherical	•	2 = Sphe	erical - Flattened			
\angle (L/W, L/T, and T/W)	ratios < 1.2)	•	tio > 1.2 ; L/T rati	io < 1.2)		
3 = Elongated		A - Flow	gate - Flattened	· • • • • • • • • • • • • • • • • • • •		
(L/T ratio . 1.2; T/W	retio < 1.2)	· ·	io > 1.2;T/W ratio	0 > 1.2)		
	14110 < 1.2)	(L/IIII	10 - 1.2, 1/ 17 1211	0 - 1.2)	· · · · ·	
Seed Coat Color:		:				
1		.			•	
1 = Yellow	2 = Green	3 = Brown	4 = Black	5 = Other		
Seed Coat Luster:				(Please Sp	pecify	
	4 · 4 · · · · · · · · · · · · · · · · ·					
1 = Dull	2 = Shiny					*. *. *
Seed Size:					•	
14.6 grams/100 seed						
14.0 grams/100 seed	š	. ~				
Hilum Color:				•		
	A 17.77	a . D		. ·	c. Ant I	
1 = Buff	2 = Yellow	3 = Brown	4 = Gray	5 = Imper	fect Black	
$6 = \mathbf{Black}$	7 = Other (Ple)	ase Specify)				•

A. MORPHOLOGY (Continued)

2004 00 085

Cotyledon Color:

Seed Protein Peroxidase Activity:

$$1 = Low$$

$$2 = High$$

Hypocotyl Color:

3

2 = Green with Bronze Bands below Cotyledons ('Woodworth' or 'Tracy') 3 = Light Purple below Cotyledons ('Beeson' or 'Pickett 71') 4 = Dark Purple extending to unifoliolate leaves ('Hodgson', 'Coker', or

Leaflet Shape:

$$3 = Ovate$$

Flower Color:

2

Pod Color:

Pubescence Color:

Plant Habit:

3

Maturity Group:



$$1 = 000$$

$$2 = 00$$

$$3 = 0$$

$$4 = I$$

$$5 = II$$

$$6 = III$$

$$7 = IV$$

$$8 = V$$

$$9 = VI$$

$$10 = VII$$

$$11 = VIII$$

$$13 = X$$

$$14 = XI$$

$$15 = XII$$

Maturity Subgroup:

5

Please enter a value from 0 - 9

B. DISEASE REACTION

$$0 = Not Tested$$

$$1 = Susceptible$$

$$3 = Tolerant$$

Bacterial

0

Bacterial Pustule (Xanthomonas campestri pv. glycines (Nakano) Dye)

1

Bacterial Blight Pseudomonas syringa pv. glycinea (Coerper) Young, Dye, and Wilkie)

0

Wildfire Blight Pseudomonas syringa pv. tabaci (Wolf Foster) Young, Dye, Wilkie)

1	al Brown Spo	ot <i>(Septori</i>	a glycines _{Hemi}	mi)	,			
L	⊸ Frogeye Le	eaf Spot (6	Cercospora soji	<i>na</i> Hara)				
0	race 1		0 race 2	2		0 ra	ce 3	0 race 4
0	race 5		0 race 6	6		0 o	the (Please Specify)	
0	Target Spot	(Corynes	pora cassiicola	(BerkC	Curt.) Wei)			
0	Downey Mil	ldew <i>(Pero</i>	nospora trifoli	orum var.	manchuric (I	Naum.) Sy	d. ex Gäum)	
0	Powdery Mi	ildew <i>(Mic</i>	rosphaera diffi	usa Cke. a	and Pk.)			
0	Brown Stem	ı Rot <i>(Ph</i> ı	ialophora grego	ata (Allin	gton _Chambe	erlain) W. (Gams.)	
0	Stem Canke	r (Diapor	the phaseoloru	m (Cke. a	and Ell.) Sacc.	var <i>cauli</i> v	ora Athow and Cald	well
1	Pod and Ste	m Blight	(Diaporthe pho	aseolorum	(Cke. and Ell	l.) Sacc. va	r <i>sojae</i> (Lehman) Wo	ehm .
	-							
0	Purple Seed	Stain (Cercospora kik	uchii (T.	Matsu. and T	'omoyasu)	Gardener)	•
0]	·	Cercospora kik (Rhizoctonia	·		'omoyasu)	Gardener)	
1]	Root Rot	(Rhizoctonia	solani Ki	ihn)			
1	Rhizoctonia	Root Rot	(Rhizoctonia	solani Ki	ihn)			
1 nytop	Rhizoctonia	Root Rot	(Rhizoctonia ohthora megasį	solani Ki perma D	ihn) rechs. f. sp <i>gl</i>	lycinea (K	uan Erwin))	
1 nytop O	Rhizoctonia ohthora Root R race 1	Root Rot ot (Phytop	(Rhizoctonia ohthora megasj race 8	solani Ki perma D	ihn) rechs. f. sp gl race 15	lycinea (K	uan Erwin)) race 22	
1 nytop 0	Rhizoctonia ohthora Root R race 1 race 2	Root Rot ot (Phytop	(Rhizoctonia ohthora megasp race 8 race 9	solani Ki perma D 0	ihn) rechs. f. sp gl race 15 race 16	dycinea (K O O	uan Erwin)) race 22 race 23	
1 0 0 2	Rhizoctonia ohthora Root R race 1 race 2 race 3	Root Rot ot (Phytop 0 0	(Rhizoctonia ohthora megasp race 8 race 9 race 10	solani Ki perma D 0 0	ihn) rechs. f. sp gl race 15 race 16 race 17	lycinea (K 0 0 0	uan Erwin)) race 22 race 23 race 24	
1 0 0 2	Rhizoctonia ohthora Root R race 1 race 2 race 3 race 4	Root Rot O O O	(Rhizoctonia phthora megasp race 8 race 9 race 10 race 11	solani Ki perma D 0 0	ihn) rechs. f. sp gl race 15 race 16 race 17 race 18	dycinea (K 0 0 0 1	race 22 race 23 race 24 race 25	ecify)

B. DISI	EASE REACTION	S (Continued)	0 = No	t Tested	1 = Susceptible	2 = Resistant	3 = Tolerant
Fungal	l Cowpea Mosaic (Co	wpea Chlorotic Vi	rus)				
1	Pod Mottle (Bean Po	-	ŕ				
1	Seed Mottle (Soybea	n Mosaic Virus)					
Nemat	ode						
Soybea	ın Cyst Nematode (He	terodera glycines I	chinohe	e)			
0	race 1 0	race 4	0	race 9			
0	race 2	race 5	0	race 14			
0	race 3	race 6	,	Other	(Please Specify)		
0	Lance Nematode (2	Hoploaimus columb	bus She	r)			
0	Southern Root Knot	Nematod (Meloid	logyne i	incognita	(Kofoid and Whit	e) Chitwo	
0	Northern Root Knot	Nematod (Meloid	logyne I	hapla Chit	wood)		
0	Peanut Root Knot N	ematode <i>(Meloidog</i>	zyne are	enaria (Ne	al) Chitwood)		
0	Reniform Nematode	(Rotylenchus renț	formu	Linwood a	and Olivera)		
0	Javanese Nematode	(Meloidogyne java	nica (I	Treub) Chi	twood)		
	Other Nematode (F	lease Specify)					
C. PHY	SIOLOGICAL RI	ESPONSES	0 = Not	t Tested	1 = Susceptible	2 = Resistant	3 = Tolerant
0	Iron Chlorosis on Ca		_	· · · · · ·			
0	Phosphorus			Oti	her <i>(Please Spec</i>	ify)	
0	Вогоп	· · · · · · · · · · · · · · · · · · ·					
0	Aluminu						
0	Salt			• • • • • • • • • • • • • • • • • • • •			
0	Drought				. =	· · · · · · · · · · · · · · · · · · ·	

D. INSECT REACTIONS	0 = Not Tested	1 = Susceptible	2 = Resistant	3 = Tolerant
Fungal				
Mexican Bean Beetle (Epilachna v	varivestis Mulsant)			
O Potato Leaf Hopper (Empoasca fai	bae (Harris))			
Other (Please Specify)				
E. HERBICIDE REACTIONS	0 = Not Tested	1 = Susceptible	2 = Resistant	
0 Metribuzin				
0 Bentazone				
1 Sulfonylurea				
2 Glyphosate				
0 Glufosinate				
0 Pendimethalin				
Other (Please Specify)				
F. TRANSGENIC COMPOSITION				
Has the development of the subject variety incl	uded the insertion of	genetic material f	rom an organism (other than a soybean,
or, the removal of genetic material from the ap	_	✓ Yes	☐ No	
If yes, please complete the following infomation	ı requests*. Use addi	itional pages if nec	essary.	
1. Please state the vector's name:				
2. Please state the vector components:				
3. Please describe the genetic material successf	ully transferred into	the subject variety	7:	
4. Please describe the insertion protocol:				
* A literature citation(s) explaining the four the "Transgenic Composition" portion of this f details of the vector components and insert elen al. Development, Identification, and Character	orm. This section is nents are summarize	fully addressed in d in Figure 1 and 1	the following pub Table 1 on page 14	lication. Specific 53. Padgette, S.R. et
G. BIOCHEMICAL MARKERS				
Please describe any biochemical information he (e.g. Simple Sequences Repeats, Restriction Fra pages if necessary.				

Exhibit D. Additional Description of the Variety

Soybean Variety 91M51

In Exhibit C we have identified variety 91M51 as susceptible to bacterial blight, brown spot, pod and stem blight, rhizoctonia root rot, bud blight, yellow mosaic, cowpea mosaic, pod mottle and seed mottle.

This does not mean that variety 91M51 is any worse for these problems than other varieties of similar maturity. Rather, we do not consider 91M51 to be immune to these problems. Therefore, we have chosen to be conservative and have identified the line as "susceptible".

Variety 91M51 is a mid Group 1 variety. If Group 1 varieties are divided into tenths, the relative maturity of 91M51 is 1.5.

REPRODUCE LOCALLY. Include form number and edition date on al	Il reproductions.	ORM APPROVED - OMB No. 0581-005	
U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE	The following statements are made in 1974 (5 U.S.C. 552a) and the Paper		
EXHIBIT E STATEMENT OF THE BASIS OF OWNERSHIP	ermine if a plant variety protection 421). The Information is held led (7 U.S.C. 2426).		
NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION	2. VARIETY NAME	
Pioneer Hi-Bred International, Inc	OR EXPERIMENTAL NUMBER	91M51	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country)	5. TELEPHONE (Include area code)	6. FAX (Include area code)	
7300 N.W. 62 nd Avenue P.O. Box 1004 Johnston, IA 50131-1004	515-254-2638	515-253-2478	
	7. PVPO NUMBE 2004 0	089	
8. Does the applicant own all rights to the variety? Mark an "X" in th If no, please explain.	e appropriate block.	X YES NO	
9. Is the applicant (individual or company) a U.S. National or a U.S.	based company?		
If no, give name of country		X YES NO	
10. Is the applicant the original owner?	If no, please answer one of the foll	lowing:	
XYES N	0		
a. If the original rights to variety were owned by individual(s), is	(are) the original owner(s) a U.S. Nation	al(s)?	
YES NO If no, give name of country	ry		
 b. If the original rights to variety were owned by a company(ies)), is (are) the original owner(s) a U.S. ba	sed company?	
YES NO If no, give name of country	ry		
11. Additional explanation on ownership (If needed, use the reverse	for extra space):		
		•	
Please Note:		<u> </u>	
Plant variety protection can only be afforded to the owners (not licens	sees) who meet the following criteria:		
 If the rights to the variety are owned by the original breeder, that penaltional of a country which affords similar protection to nationals or 			
If the rights to the variety are owned by the company which employ nationals of a UPOV member country, or owned by nationals of a genus and species.			
3. If the applicant is an owner who is not the original owner, both the	original owner and the applicant must m	eet one of the above criteria.	
The original breeder/owner may be the individual or company who did Act for definitions.	rected the final breeding. See Section 4	1(a)(2) ot the Plant Variety Protection	
According to the Paperwork Reduction Act of 1995, no persons are required to respond to a for this information collection is 0581-0055. The time required to complete this information constructions, searching existing data sources, gathering and maintaining the data needed, and	collection is estimated to average 6 minutes per respo	nse, including the time for reviewing the	
The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the bastatus. (Not all prohibited bases apply to all programs). Persons with disabilities who require contact the USDA's TARGET Center at 202-720-2600 (visica and TD).	pasis of race, color, national origin, sex, religion, age.	disability, political beliefs, and marital or familial	

To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call 1-800-245-6340 (voice) or (202) 720-1127 (TDD). USDA is an equal opportunity employer.

ST-470-E (04-99) (Destroy previous editions).